Sea Turtle Program Overview
Southeast Fisheries Science Center
Beaufort Laboratory

Summary of primary ongoing and proposed (funded) sea turtle research and monitoring activities for sea turtles, including international research and monitoring activities, if applicable.

In-water sea turtle population study (Braun-McNeill)
The sounds of North Carolina provide important foraging habitat to juvenile loggerhead, Kemp's ridley, and green sea turtles. A long-term, mark-recapture program was established in 1988 to assess these populations, utilizing pound nets as the primary means of capturing turtles. Since 1998, when a more systematic and intensive sampling program began, it was determined that loggerheads comprise the majority (84%) of the > 2,000 turtles captured thus far; 25% of tagged loggerheads returned to particular pound nets within a season and/or from year-to-year. As a result of their high rate of recapture, data on loggerhead growth rates, sex ratios, genetic structure, seasonal distributions, site fidelity, homing behavior, and estimates of abundance have been collected. This project has been providing, and will continue to provide, the National Marine Fisheries Service with estimates of demographic parameters (survival, recruitment, emigration, and immigration) needed to construct accurate population assessments for loggerhead sea turtles. Although captures of green (10%) and Kemp's ridley (6%) turtles were not as high as loggerhead, we are still able to collect baseline demographic data.

Health Assessment of Juvenile Loggerhead Sea Turtles (Braun-McNeill)
This project measures physiological variable for juvenile loggerheads caught in the in-water study to develop baseline health indices and examine seasonal and multiple year trends. The results serve as a tool to determine if epizootics or health issues are causative factors in episodic mass stranding events, especially when fishery interactions are unlikely to be the cause, to measure current status and future changes in health of the wild juvenile population in response to environmental pressures, and to help set criteria for evaluating the success of rehabilitation procedures used by sea turtle treatment facilities.

National Sea Turtle Aging Laboratory (Avens)
Research conducted by the laboratory is focused on developing and refining methods to obtain information about sea turtle ages, stage durations, and somatic growth rates, which can then be incorporated into population models used to predict the impacts of management efforts. Bone samples are obtained from stranded sea turtles, histologically processed, and then skeletochronological analyses of those samples are conducted to obtain age and growth data.

Aerial surveys (Braun-McNeill)
In order to mitigate potential interactions with co-occurring commercial fisheries or military operations, the density of animals and their movements within Pamlico and Core sounds throughout the year needs to be understood. Aerial surveys within military operations areas provide Marine Corp Air Station Cherry Point with seasonal distribution and relative abundance data of sea turtles and marine mammals. This information

enables us to predict times when protected species densities are lowest, thus allowing the military to conduct operations at times least likely to negatively impact protected species.

Status of or involvement in initiatives such as SAIP, TEWG, modeling exercises, etc.

TEWG (Avens)
Larisa Avens is a member of the leatherback TEWG and provides age and growth information to the group.

Summary of involvement in broader agency working groups/issues where your program is representing the marine turtle program

Sea Turtle Advisory Committee (Braun-McNeill)
This committee is addressing sea turtle bycatch issues in North Carolina and is formulating solutions to sea turtle interactions in commercial fishing gear.

Upcoming sea turtle (or related) meetings and/or workshops your FMC staff will be convening or participating in during 2006

26th Annual International Sea Turtle Symposium

Anticipated changes in staffing or hiring of new sea turtle program staff in 2006

We do not anticipate any changes.